

Minutes of the 86th Machine-Time Committee Meeting (draft)

Date and time: March 18, 2015; 10:30–11:35

Place: RIBF Bldg., Room 203

Attendees: Sakai^a(Chair), En'yo^{a,†}, Abe^a, Fukunishi^a, Kamigaito^a, Kase^a, Kubo^a, Miyatake^c, Morimoto^a, Okuno^a, Sakurai^a, Shimoura^b, Ueno^a, Uesaka^a, Wakasugi^a, Yamaguchi^b, Imai^{d,†}, Haba^{a,†}, K. Yoshida^{a,†}, Otsu^{a,†}, Tanaka^{a,†}, A. Yoshida^{a,†}, Nagatomo^{a,†}, Nishimura^{a,†}, Yoneda^a

Absent: Uwamino^a, Motobayashi^{a,†}, Morita^a, Kishimoto^{a,†}

^aRNC / ^bCNS / ^cKEK / ^dRIBF-UEC / [†]Observer
(in random order)

Reports

1. Current Status of the Machine Time Operation (Yoneda)

The current status of the machine time operation was reported. Following the last machine time committee meeting, the fare-paid experiment and RI production, were carried out. The ²³⁸U acceleration will start on March 19 for the spring campaign of SRC/BigRIPS MT.

2. Report on Machine Study (Fukunishi)

A report was made concerning the accelerator machine study. A vacuum leakage was found at the RRC cooling water system, and in order to examine the influences on the accelerated beam, the ²³⁸U beam was accelerated in RRC from 9am, March 11. The beam loss in RRC was about 23% with the current vacuum, not much different from the losses observed in recent years, which has led to the conclusion that it is possible to provide the beam to SRC/BigRIPS with the current level of vacuum leakage. There was a plan to check the beam loss with the worse vacuum, but it had to be given up due to an RRC RF trouble. The acceleration ended at 11pm.

3. Report on Fare-Paid MT (A. Yoshida)

A report was made concerning the machine study for a fare-paid experiment which was carried out from 11am, March 2. The original plan to irradiate customers' materials with a ⁷Be secondary beam produced from ⁷Li primary beam in CRIB was suspended since the secondary beam rate was 1/6 of the rate obtained in the past experiment, and too low to provide significant irradiation. The reason for this may be the gas target, which is normally used with circulated H₂ gas but in this case was used with a closed cell due to a gas leakage. The next step is to repair the target, prepare beam monitor detectors, and to perform a 1-day test experiment to confirm that the beam rate in the past experiment is realized. The 3-day fare-paid experiments will follow which will be performed before summer.

4. AVF Ion Source Report (Nagatomo)

A report was made concerning the 18GHz superconducting ECR ion source which provides ions to AVF. Last September, there was a trouble of the superconducting coil not getting cooled so the coil was replaced. The sextupole permanent magnet was also renewed late November. The ion source however,

did not become available due to the emergency stop of compressors and a breakdown of the klystron. The repair works were completed in February, and the ion source provided ions to the MT in March. It was confirmed that the ion source has now become available.

5. Status of PAC Meetings (Yoneda)

- 16th NP-PAC: (12/3 - 5, tentative)

The meeting will be held for 3 days. Half of the PAC members will be replaced.

- 12th ML-PAC: (to be held in July):

A mail-review system is supposed.

- 4th In-PAC: nothing has been finalized about the next PAC.

Topics discussed

1. Approval of Minutes of Previous Meeting (Sakai)

2. Application of Parasite Experiment

- Performance check of detectors used in the EURICA experiments (AIDA, NiGIRI) (Nishimura)

Tests of detectors used in the EURICA experiments late in May will be conducted using the beam that will be provided to EURICA during the SEASTAR experiments from late in April. The detectors to be tested are AIDA (silicon pixel detector) and NiGIRI (neutron TOF detector). In the SEASTAR experiment, EURICA is supposed to be used for isomer checks, and this performance test will be done without disturbing the SEASTAR experiment. An AIDA test was done once in May 2014 but it was not very effective due to a signal noise that was too high. This time, the noise will be killed and the correlation with the BigRIPS particle identification will be taken at the same time. The performance and response of the detectors will be examined using correlation with the beam information.

As a result of review, this proposal was approved not as a parasite measurement but as a machine study. Submission of a document with a machine study plan was requested.

3. Next Meetings

- The next meeting will be held on Tuesday, April 28, 2015, at 3pm.
- The meeting after the next will be held on Tuesday, May 26, at 3pm.